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ABSTRACT OF THE INVENTION

A corrosion-inhibiting pigment comprising a rare earth element and a valence stabilizer combinded to form a rare earth/valence stabilizer complex. The rare earth element is selected from cerium, terbium, praseodymium, or a combination thereof, and at least one rare earth element is in the tetravalent oxidation state. An inorganic or organic material is used to stabilize the tetravalent rare earth ion to form a compound that is sparingly soluble in water. Specific stabilizers are chosen to control the release rate of tetravalent cerium, terbium, or praseodymium during exposure to water and to tailor the compatibility of the powder when used as a pigment in a chosen binder system. Stabilizers may also modify the processing and handling characteristics of the formed powders. Many rare earth-valence stabilizer combinations are presented that can equal the performance of conventional hexavalent chromium systems.